

Roxie Road Bridge
Spanning Cane Creek on County Road 450
Poplar Bluff vicinity
Butler County
Missouri

HAER No. MO-70

HAER
MO
12-POBL.V,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U.S. Department of the Interior
P.O. Box 25287
Denver, Colorado 80225

HISTORIC AMERICAN ENGINEERING RECORD

Roxie Road Bridge

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Location: Spanning Cane Creek on County Road Number 450, in a rural setting six miles west of Poplar Bluff and immediately west of the abandoned village of Roxie in Butler County, Missouri

UTM: Zone 15/N4068640/E722650
Quad: Fairdealing (7.5 minute series)

Date of Construction: Construction was carried out during late 1905 and early 1906

Present Owner: Butler County
Butler County Courthouse
Poplar Bluff, Missouri

Present Use: Vehicular bridge, to be replaced by a new vehicular bridge in 1992.

Significance: The bridge is one of few remaining examples of small span high Pratt through truss steel bridges in unaltered condition in Missouri. The bridge is also a good example of early 20th century work by master bridge fabricator Stupp Brothers Bridge & Iron Co. of St. Louis, Missouri.

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I. HISTORY

A. Need for the Bridge

The bridge replaced an earlier structure to the west of the village of Roxie, where Roxie Road crosses Cane Creek. The location was the site of a Civil War-era grist mill, one of four on Cane Creek at that time.¹ The mill was first operated by a Mr. Harrison and then by Thomas Lane who came from Georgia to Butler County in 1869.² A Butler County sheriff, James Tubbs, owned the mill which was called "Tubbs' Mill" during the 1870s.³ Mr. William Randles came from Indiana and bought the land in the late 1880s and established a post office at the site in 1891.⁴ The postal authorities would not accept Randles' name for the post office and he then named it "Roxie," which was the name of his deceased daughter.⁵ The post office was in operation from 1891 to 1907.⁶ A wooden bridge was probably present at the site in the 1870s.⁷ The structure is first specifically noted in the Butler County Records by payments of \$76.50 and \$91.00 for repair on the bridge in 1895.⁸ A devastating flood apparently destroyed most, if not all, of an unidentified number of wooden bridges over Cane Creek in 1897.⁹ It is possible that the Roxie Bridge was destroyed at this time or was severely damaged in that the present bridge was constructed in 1905 and 1906.¹⁰ The bridge was probably an important structure in that the grist mill was extensively utilized by local farmers for grinding corn and its loss may have required farmers on the west side of Cane Creek to travel at least two miles to the north or two miles to the south of Roxie to cross at bridges or fords to reach the mill. It is probable that a ford did exist at Roxie between the flood of 1897 and the construction of its present bridge in 1905 in that one historic reference refers to "Roxie Ford."¹¹

The only physical evidence of Roxie by 1945 was the presence of ruins of the last mill and the steel bridge.¹² It is apparent that the Roxie Road Bridge initially served to implement access to the grist mill and to the post office. These needs ceased to be important by the early 20th century and the bridge currently serves limited rural traffic in the same manner as other rural bridges in the vicinity.

B. Construction Chronology

The first record of the existing bridge over Cane Creek on Roxie Road is in the Butler County Court bridge records of October 2, 1905. The record states that the bridge building concern of Edy and Kochtitzky failed to meet a contract with the county to build a bridge at Roxie. The bridge was to be built for the sum of \$1,750.¹³ The next entry specifically referring to the bridge was made on November 7, 1905, when the county ordered a contract, established with Stupp Brothers Bridge and Iron Company, to building a bridge across Cane Creek at what is known as Roxie Road crossing, for a sum of \$1,700.¹⁴ The final specific notation regarding the bridge is found in the County Court Record of March 31, 1906, which records payment of \$1,700 to Stupp Brothers Bridge and Iron Company, following completion of the bridge.¹⁵

II. THE BRIDGE

The Roxie Road Bridge is a pin connected steel high Pratt through truss bridge, 90 feet 6 inches long and 13.66 feet wide, with 16 feet above deck.¹⁶ The bridge has a four-panel main span, a double eastern approach span of 14 feet and 19 feet 7 inches, and a westerly approach span of 14 feet, giving a total bridge length of 138 feet 1 inch. The bridge has 11-foot horizontal and 14-foot vertical clearances.

A small corner fragment of the bridge plaque with the letters "O'S" remains attached to the right western inclined end post. The size of the characters and the limited possible width of the original plaque leave little doubt that this is a STUPP BRO'S bridge.¹⁷

Top chords and inclined end posts are 10-inch by 6-inch plate over webbed channel. Bottom chords are 1/2-inch by 2-inch paired eye bars in the first panels and 3/4-inch by 2-inch paired eye bars in the mid panels. The hip verticals are 7/8-inch paired square eye bars. The vertical posts are 5-inch by 9.5-inch paired webbed channels. The hip diagonals are 1/2-inch by 2-inch paired eye bars. The counter bracing lattice is composed of paired back-to-back 3-inch by 2.5-inch angles. The top lateral bracing is 3/4-inch round bar.

The deck is composed of oak planks over 4-inch channels on the out. The bottom lateral bracings are composed of 1-inch round eye bars. The same construction is continued across the approach spans. The rails are made up of two rows of 3-inch angles on 4-inch channel vertical posts and continue across all of the spans.

The substructure support is made up of braced and webbed 2.5-foot diameter concrete-filled steel cylinder piers under the main span, an arched concrete pier between the two eastern approach spans, and concrete abutments. The latter two are 1970s' modifications.¹⁸

III. STUPP BROTHERS BRIDGE AND IRON COMPANY

The Stupp Brothers' firm was begun in 1859 by John Stupp and reorganized in 1904 by his sons, George and Jul.¹⁹ The firm, located in St. Louis, is a leading building material manufacturer today. The number of patented bridge types made by Stupp Brothers is unknown at present. Preliminary review of Missouri bridge records indicate that the company produced a variety of types, sizes, and lengths of bridges. Placement of the Roxie Road Bridge and the Stupp Brothers Bridge and Iron Company within the context of Missouri bridge construction history will be realized with a soon-to-be-published Missouri historic bridge inventory.²⁰

III. BIBLIOGRAPHY

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B. Other:

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IV. ENDNOTES

1. G. R. Loughead, Early History of Butler County, Missouri, Cape Girardeau: Stinson Press, 1987, p. 163.
2. (?) Pottenger, "History of Butler County, Missouri, 1945" TMS (photocopy), no page numbers, Special Collections, State Historical Society of Missouri, University of Missouri, Columbia.
3. Pottenger, 1945.
4. Pottenger, 1945.
5. Pottenger, 1945.
6. Robert G. Schultz, "Missouri Post Offices 1804-1981, 1981" [photocopy], p. 46, Special Collections, State Historical Society of Missouri, University of Missouri, Columbia.

7. D. B. Deems, A History of Butler County, Missouri, Poplar Bluff: D. B. Deems Publisher, 1925, p. 4.
8. Butler County, County Court Record, May 13, 1895.
9. Deems, 1925, p. 6.
10. County Court Record, November 7, 1905.
11. Loughhead, 1987, p. 165.
12. Pottenger, 1945.
13. County Court Record, October 2, 1905.
14. County Court Record, November 7, 1905.
15. Butler County, Warrant Book D, March 31, 1906.
16. A Pratt through truss bridge has diagonals in tension and verticals in compression and has top chords. The bridge was the most commonly used in America in the early 1900s. according to J. A. L. Waddell in his Bridge Engineering, New York: John Wiley and Sons, 1916, p. 468.
17. Historic American Engineering Record, No. MO-49, Cedar Falls Road Bridge, St. Francois County, Missouri. National Park Service, Denver, Colorado.
18. Missouri Highway and Transportation Department, Structure Inventory & Appraisal Sheet, Butler County, Bridge No. 372000.0, n.d.
19. Victor Darnell, Directory of American Bridge Building Companies 1840 to 1900, Washington, D.C.: The Society for Industrial Archeology, 1984.
20. Clayton Fraser, Fraserdesign, Loveland, Colorado. Personal communication, June 12, 1991.